UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,085	09/27/2005	Thomas Patrick Newberry	PU030094	4305

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/551,085	NEWBERRY ET AL.
	Examiner	Art Unit
	MIRANDA LE	2169

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>07 April 2009</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-18</u> is/are pending in the application.
    4a) Of the above claim(s) <u>10-14,17 and 18</u> is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-9,15 and 16</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on <u>27 September 2005</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
        1. ☐ Certified copies of the priority documents have been received.
        2. ☐ Certified copies of the priority documents have been received in Application No. _____.
        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>09/13/07</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restriction

Election was made without traverse of Group I, claims 1-9, 15-16 is

acknowledge. Group II, claims 10-14, 17, 18 are withdrawn from further

consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-

elected.

Preliminary Amendment

Applicant's Preliminary Amendment, filed 09/27/05, has been received,

entered into the record, and considered.

Information Disclosure Statement

Applicants' Information Disclosure Statement, filed 09/27/05, has been

received, entered into the record, and considered. See attached form PTO-1449.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or
composition of matter, or any new and useful improvement thereof, may obtain a patent
therefor, subject to the conditions and requirements of this title.

Claims 15-16 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

Claim 15 recites "an apparatus... comprising: a master controller...; a plurality of file partition handlers..."; however, in paragraph [0019] of the instant specification, Applicant has provided evidences that Applicant intends the recited components are either hardware/software or a combination of hardware and software; thus, each recited component of the apparatus may be reasonably interpreted by one of ordinary skill as software alone. Since these components that make up the apparatus are all software applications that do not result in a tangible practical application under 35 U.S.C. § 101, the apparatus is not tangible embodied in a manner so as to be executable. The claim lacks the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 U.S.C. § 101, instead being software per se. See MPEP 2106.01.

As such, the claimed apparatus does not define any specific hardware and needs to be amended to include physical computer hardware (e.g. processor, memory) to execute the software components.

Claim 16 is dependent upon claim 15, does not add any limitations which correct the deficiencies of claim 15, and is therefore also similarly rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless:

(e) the invention was described in

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 15 is rejected under 35 U.S.C. 102(e) as being anticipated by Duan et al. (US Patent No. 7,143,433).

As per claim 15, Duan teaches an apparatus for transmitting a media object comprising:

a master controller *(i.e. the admission server 435, col. 15, lines 28-33)* for partitioning said media object *(i.e. to dynamically segment video data files, Summary)*;

a plurality of file partition handlers *(i.e. a video server system 420a, . . . , 420f, col. 15, lines 28-33)* for transmitting segments of said partitioned media object *(i.e. a segmentation apparatus in communication with the plurality of data file storage devices to dynamically fragment any for the data files or portion of the data files into a plurality of segments to allow transfer to and processing by at least one of the computing systems, col. 10, lines 38-55)*, wherein

said master controller determines how to partition said media object in accordance with the available file partition handlers *(i.e. the admission server 435 retrieves the disk usage table and calculates a new segmentation list. The new segmentation list and the current segmentation list from the disk usage table are compared 520 to determine if the requested video data file should be re-*

segmented, col. 16, lines 18-33), and said master controller assigns a segment

of said partitioned media object to a file partition handler selected from said

plurality of file partition handler *(i.e. Once user of a client computing systems*

400a, 400b, 400c selects a video data file to be viewed, it contacts the admission

server 435, which based on the bandwidth requirements and the file location of

the video data file, assigns a video server system 420a, . . . , 420f from the

server clusters 410a, 410b, col. 15, lines 28-33).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability

of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject

matter of the various claims was commonly owned at the time any inventions

covered therein were made absent any evidence to the contrary. Applicant is

advised of the obligation under 37 CFR 1.56 to point out the inventor and

invention dates of each claim that was not commonly owned at the time a

later invention was made in order for the examiner to consider the

applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior

art under 35 U.S.C. 103(a).

Claims 1-5, 9, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duan et al. (US Patent No. 7,143,433), in view of Jerding et al. (US Patent No. 7,010,801).

As per claim 1, Duan teaches a method of segmenting a media object for transmission over a network, comprising the steps of:

partitioning a media object *(i.e. the video data file, col. 17, lines 1-8)* into at least two segments *(i.e. to dynamically segment video data files, Summary)*;

assigning at least one of said segments *(i.e. Once user of a client computing systems 400a, 400b, 400c selects a video data file to be viewed, it contacts the admission server 435, which based on the bandwidth requirements and the file location of the video data file, assigns a video server system 420a, . . . , 420f from the server clusters 410a, 410b, col. 15, lines 28-33)* to a file partition handler *(i.e. a video server system 420a, . . . , 420f, col. 15, lines 28-33)*; and

transmitting said at least one segment *(i.e. transfer of the video data files or portions of video data files from a file server system to client computing system, col. 10, lines 33-37)*.

Duan does not specifically teach using an assigned user datagram protocol (UPD) port.

Jerding teaches using an assigned user datagram protocol (UPD) port *(i.e. User Datagram Protocol (UDP) socket, col. 13, lines 8-24)*.

It would have been obvious to one of ordinary skill of the art having the teaching of Duan and Jerding at the time the invention was made to modify the system of Duan to include the limitations as taught by Jerding. One of ordinary

skill in the art would be motivated to make this combination in order to configure

the client device with a control options suite for the active session of the media in

view of Jerding (Summary), as doing so would give the added benefit of a

method for an interactive media services system to provide media to a user

through an interactive media services client device, wherein the client device is

coupled to a programmable media services server device, as taught by Jerding

(Summary).

As per claim 2, Duan teaches the method of claim 1, comprising the

steps of:

notifying a master controller that a file partition handler has transmitted

said at least one segment *(i.e. The admission server 435 then updates the hit*

counter 560 within the disk usage table indicating the usage of a video data file,

col. 16, lines 34-44);   assigning an additional segment *(i.e. a new*

segmentation list) of said partitioned media object to said file partition handler for

transmission *(i.e. the admission server 435 retrieves the disk usage table and*

calculates a new segmentation list. The new segmentation list and the current

segmentation list from the disk usage table are compared 520 to determine if the

requested video data file should be re-segmented, col. 16, lines 18-33).

As per claim 3, Duan teaches the method of claim 2, wherein said master

controller operates at least two file partition handlers *(i.e. a video server system*

420a, . . . , 420f, col. 15, lines 28-33; the title server 450, col. 14, lines 4-17)

where at least one segment of said partitioned media object, constituting a major

segment *(i.e. a primary segmented video file, col. 17, lines 1-8; a copy of*

segment x, col. 17, lines 9-16) is broken into minor segments *(i.e. the video data*

file), each minor segment being assigned to a file partition handler by said master

controller *(i.e. the video data file into smaller segments. Each segment is*

assigned a file name and a location within any of the disks 480a, . . . , 480r. and

495a, . . . , 495.times.. When a client computing system 400a, 400b, 400c

requests a video data file, the admission server 435 retrieves the listing of the

segments of the requested data file from the disk usage table, col. 16, lines 3-

17).

    As per claim 4, Duan teaches the method of claim 3, wherein said minor

segments are successfully transmitted by said at least two file partition handlers

before a second major segments *(i.e. a copy of segment x, col. 17, lines 9-16)* is

broken into minor segments *(i.e. the segment x can be dynamically re-*

segmented to segments x.a 490b, x.b 490c, and x.c 490d, col. 17, lines 9-16)

and transmit said media object *(i.e. Refer now to FIG. 6 for a discussion of the*

calculation 510 of FIG. 5 of a new segment listing of a video data file or a portion

of a video data file. The segmentation process begins once a client computing

system 400a, 400b, 400c has contacted the admission server to request a video

data file, col. 17, lines 30-35).

As per claim 5, Duan teaches the method of claim 2, wherein said master controller and file partition handlers *(i.e. a video server system 420a, . . . , 420f, col. 15, lines 28-33; the title server 450, col. 14, lines 4-17)* are part of a server used to transmit said media object *(i.e. The admission server 435 then updates the hit counter 560 within the disk usage table indicating the usage of a video data file, col. 16, lines 34-44).*

As per claim 9, Duan teaches the method of claim 1, wherein said segment is transmitted using a multicast compliant transmission schema for receipt by a plurality of clients *(i.e. When a client computing systems 400a, 400b, 400c requests a video data file (on demand) or join a broadcast (multicast) of a video data file, col. 13, line 57 to col. 14, line 3).*

As per claims 16, Duan does not specifically teach the apparatus of Claim 15, wherein said file partition handler transmit said segment via a user datagram protocol (UDP) port.

Jerding teaches this limitation *(i.e. User Datagram Protocol (UDP) socket, col. 13, lines 8-24).*

It would have been obvious to one of ordinary skill of the art having the teaching of Duan and Jerding at the time the invention was made to modify the system of Duan to include the limitations as taught by Jerding. One of ordinary skill in the art would be motivated to make this combination in order to configure the client device with a control options suite for the active session of the media in

view of Jerding (Summary), as doing so would give the added benefit of a

method for an interactive media services system to provide media to a user

through an interactive media services client device, wherein the client device is

coupled to a programmable media services server device as taught by Jerding

(Summary).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Duan et al. (US Patent No. 7,143,433), in view of Jerding et al. (US Patent

No. 7,010,801), as applied to claims above, and further in view of

Humpleman et al. (US Patent No. 6,801,507).

As per claim 6, Jerding teaches the method of claim 2, said file partition

handlers communicates with a server using UDP ports.

Duan, Jerding does not specifically teach said master controller

communicates with a second master controller using a Transmission Control

Protocol and Internet Protocol (TCP/IP) based transmission scheme.

Humpleman teaches this limitation *(i.e. TCP/IP, col. 5, line 46 to col. 6,*

line 8).

It would have been obvious to one of ordinary skill of the art having the

teaching of Duan, Jerding, and Humpleman at the time the invention was made

to modify the system of Duan, Jerding to include the limitations as taught by

Humpleman. One of ordinary skill in the art would be motivated to make this

combination in order to have a server device communicate with a client device in

view of Humpleman (col. 5, line 46 to col. 6, line 8), as doing so would give the

added benefit of having a server device provide a service but a client device can use the data, as a DTV displays video data, and need not manipulate or alter the data, as taught by Humpleman (col. 5, lines 20-33).

Claims 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duan et al. (US Patent No. 7,143,433), in view of Jerding et al. (US Patent No. 7,010,801), as applied to claims above, and further in view of Cannon et al. (US Patent No. 6,014,706).

As per claim 7, Duan, Jerding does not explicitly teach said master controller keeps track of lost segments not successfully transmitted in a linked list, wherein said master controller causes said file partition handler responsible for said lost segment to retransmit said lost segment.

Cannon teaches this limitation *(i.e. The use of the retransmit buffer advantageously facilitates the rapid retransmission of a data packet therein if that data packet is requested by client computer 104 for retransmission (e.g., in the event a data packet is detected to be missing by client computer 104), col. 7, lines 46-65)*.

It would have been obvious to one of ordinary skill of the art having the teaching of Duan, Jerding, and Cannon at the time the invention was made to modify the system of Duan, Jerding to include the limitations as taught by Cannon. One of ordinary skill in the art would be motivated to make this combination in order to retransmit a missing data packet in view of Cannon (col. 7, lines 46-65), as doing so would give the added benefit of providing improved

methods and apparatus for implementing control features on real-time video

streams and/or live video streams transmitted via a computer network from

server computer(s) to client computer(s) as taught by Cannon (col. 3, lines 57-

61).

     As per claim 8, Duan, as combined, teaches the method of claim 2,

wherein said master controller reassigns said segment of said partitioned media

object to a second file partition handler *(i.e. A request for a video data file having*

segments missing requires that the distribution server 470 recreate the segments

of the video data file requested and transfer them to the server systems 420a, . .

. , 420f. However, those video data file segments at the beginning of the video

data file can be transferred to the client system 400a, 400b, 400c for viewing,

while the distribution server 470 is recreating those missing segments, col. 18,

line 63 to col. 19, line 20).

     Duan, Jerding does not explicitly teach in response when said file partition

handler fails to deliver said segment.

     Cannon teaches this limitation *(i.e. The use of the retransmit buffer*

advantageously facilitates the rapid retransmission of a data packet therein if that

data packet is requested by client computer 104 for retransmission (e.g., in the

event a data packet is detected to be missing by client computer 104), col. 7,

lines 46-65).

     It would have been obvious to one of ordinary skill of the art having the

teaching of Duan, Jerding, and Cannon at the time the invention was made to

modify the system of Duan, Jerding to include the limitations as taught by

Cannon. One of ordinary skill in the art would be motivated to make this

combination in order to retransmit a missing data packet in view of Cannon (col.

7, lines 46-65), as doing so would give the added benefit of providing improved

methods and apparatus for implementing control features on real-time video

streams and/or live video streams transmitted via a computer network from

server computer(s) to client computer(s) as taught by Cannon (col. 3, lines 57-

61).

Conclusion

The prior art made of record and not relied upon is considered pertinent to
applicant's disclosure.

Any inquiry concerning this communication or earlier communications from
the examiner should be directed to Miranda Le whose telephone number is (571)
272-4112. The examiner can normally be reached on Monday through Friday
from 10:00 AM to 6:00 PM.
        If attempts to reach the examiner by telephone are unsuccessful, the
examiner's supervisor, James K. Trujillo, can be reached at (571) 272-3677. The
fax number to this Art Unit is (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application
should be directed to the Group receptionist whose telephone number is (571)
272-2100.
        Information regarding the status of an application may be obtained from
the Patent Application Information Retrieval (PAIR) system. Status information
for published applications may be obtained from either Private PAIR or Public
PAIR. Status information for unpublished applications is available through
Private PAIR only. For more information about the PAIR system, see <http://pair-
direct.uspto.gov>. Should you have questions on access to the Private PAIR
system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-
free).

/Miranda Le/
Primary Examiner, Art Unit 2159